

## CONTENTS OF VOLUME 17

## NUMBER 1

P. K. AGARWAL, B. ARONOV, J. PACH, R. POLLACK, M. SHARIR: Quasi-planar graphs have a linear number of edges .....	1
R. AHLSEWEDE, N. CAI: Shadows and isoperimetry under the sequence-subsequence relation .....	11
S. BALL, A. BLOKHUIS, F. MAZZOCCA: Maximal arcs in Desarguesian planes of odd order do not exist .....	31
D. BAR-NATAN: Lie algebras and the four color theorem .....	43
A. BJÖRNER, SINIŠA VREĆICA: On $f$ -vectors and Betti numbers of multi-complexes .....	53
M. CONFORTI, G. CORNUÉJOLS, A. KAPOOR, KRISTINA VUŠKOVIĆ: Universally signable graphs .....	67
U. FEIGE: Randomized graph products, chromatic numbers, and the Lovász $\vartheta$ -function .....	79
H. KARLOFF, Y. MANSOUR: On construction of $k$ -wise independent random variables .....	91
J. KOMLÓS, G. N. SÁRKÖZY, E. SZEMERÉDI: Blow-up lemma .....	109
A. THOMASON: Graph products and monochromatic multiplicities .....	125
H. ZHOU, X. ZHU: Multiplicativity of acyclic local tournaments .....	135
NOTE	
D. BEDNARCHAK, M. HELM: A note on the Beck–Fiala theorem .....	149

## NUMBER 2

J. EISFELD, K. METSCH: Blocking $s$ -dimensional subspaces by lines in $PG(2s, q)$ .....	151
Z. FÜREDI, P. KOMJÁTH: Nonexistence of universal graphs without some trees .....	163
Y. KOHAYAKAWA, T. LUCZAK, V. RÖDL: On $K^4$ -free subgraphs of random graphs .....	173
N. LINIAL, M. LUBY, M. SAKS, D. ZUCKERMAN: Efficient construction of a small hitting set for combinatorial rectangles in high dimension .....	215
B. MOHAR: Projective plane and Möbius band obstructions .....	235
J. OXLEY: A matroid generalization of a result of Dirac .....	267
M. TALAGRAND: On boundaries and influences .....	275
G. ZÉMOR: An upper bound on the size of the snake-in-the-box .....	287
NOTE	
R. AHLSEWEDE, L. H. KHACHATRIAN: Counterexample to the Frankl–Pach conjecture for uniform, dense families .....	299

## NUMBER 3

NOGA ALON, MICHAEL KRIVELEVICH: The concentration of the chromatic number of random graphs .....	303
WILLIAM H. CUNNINGHAM, JAMES F. GEELEN: The optimal path-matching problem .....	315
TAMÁS FLEINER: Covering a symmetric poset by symmetric chains .....	339
JOACHIM VON ZUR GATHEN, JAMES R. ROCHE: Polynomials with two values .....	345
A. HAJNAL, P. KOMJÁTH: A strongly non-Ramsey order type .....	363
JEFF KAHN, P. MARK KAYLL: On the stochastic independence properties of hard-core distributions .....	369
JÁNOS KOMLÓS: Covering odd cycles .....	393
MICHAEL KRIVELEVICH: On the minimal number of edges in color-critical graphs .....	401
JÁNOS PACH, GÉZA TÓTH: Graphs drawn with few crossings per edge ....	427
DANIEL P. SANDERS, YUE ZHAO: On simultaneous edge-face colorings of plane graphs .....	441

## NUMBER 4

GYÖRGY ELEKES: On Linear Combinatorics I. Concurrency — an Algebraic Approach .....	447
PAUL ERDŐS, ANDRÁS GYÁRFÁS: The optimal path-matching problem ...	459
HUGH HIND, MICHAEL MOLLOY, BRUCE REED: Colouring a Graph Frugally .....	469
ANDREW KOTLOV, LÁSZLÓ LOVÁSZ, SANTOSH VEMPALA: The Colin de Verdière number and sphere representations of a graph .....	483
THOMAS MÜLLER: Finite group actions and asymptotic expansion of $e^{P(z)}$	523
YEHUDA SHALOM: Expanding graphs and invariant means .....	555
MIKLÓS SIMONOVITS, VERA T. SÓS: Hereditarily extended properties, quasi-random graphs and not necessarily induced subgraphs .....	577
Contents of Volume 17 .....	597
Author Index for Volume 17 .....	599

